

Comparisons of Job Characteristics

Focus Occupation: **Environmental Engineers (17-2081)**

Associated Occupation: **Engineers, All Other (17-2199)**

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 76

Focus Occupation: Environmental Engineers (17-2081)

Associated Occupation: Engineers, All Other (17-2199)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Engineering and Technology	5.7	20.1	21.7	0	Current knowledge level may be sufficient
Mathematics	9.2	17.1	16.3	0	Current knowledge level may be sufficient
Design	5.2	16.5	17.2	0	Current knowledge level may be sufficient
Computers and Electronics	8.4	15.0	10.8	<<	Extensive education and/or training may be required
Physics	4.3	14.8	15.7	0	Current knowledge level may be sufficient
Mechanical	6.8	14.0	9.8	<<	Extensive education and/or training may be required
Production and Processing	6.0	12.9	5.0	<<	Extensive education and/or training may be required
Building and Construction	4.0	6.6	13.0	>>	Current knowledge level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 92

Focus Occupation: Environmental Engineers (17-2081)

Associated Occupation: Engineers, All Other (17-2199)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Mathematics	6.2	12.8	12.3	0	Current skill level may be sufficient
Systems Analysis	6.5	11.7	13.1	>	Skill level is likely sufficient
Science	4.5	11.4	11.4	0	Current skill level may be sufficient
Systems Evaluation	6.4	11.1	11.7	0	Current skill level may be sufficient
Operations Analysis	5.0	10.8	11.0	0	Current skill level may be sufficient

Technology Design	2.6	7.9	5.5	<<	Extensive development of skills in this area may be required
Equipment Selection	3.3	6.3	2.7	<<	Extensive development of skills in this area may be required
Programming	2.2	5.3	5.6	0	Current skill level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 97			
Focus Occupation: Environmental Engineers (17-2081) Associated Occupation: Engineers, All Other (17-2199)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Written Comprehension	11.0	15.1	16.0	0	Current ability level may be sufficient
Deductive Reasoning	10.6	15.0	16.2	0	Current ability level may be sufficient
Inductive Reasoning	10.2	13.7	15.4	>	Current ability level is likely sufficient
Mathematical Reasoning	6.3	13.4	13.4	0	Current ability level may be sufficient
Information Ordering	9.9	13.2	14.2	0	Current ability level may be sufficient
Category Flexibility	9.0	12.3	13.6	>	Current ability level is likely sufficient
Originality	7.6	11.8	10.1	<	Some improvement in abilities may be required
Visualization	7.5	11.7	12.8	0	Current ability level may be sufficient
Number Facility	6.3	11.6	11.7	0	Current ability level may be sufficient
Fluency of Ideas	7.6	11.4	12.2	0	Current ability level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

There are no common work activities.

Tools and Technologies that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 82
Focus Occupation: Environmental Engineers (17-2081) Associated Occupation: Engineers, All Other (17-2199)		
Tools and Technologies	Exclusivity	
Audio and visual equipment	4	
Autoclave and sterilizer equipment and accessories	12	
Business function specific software	1	
Chemical evaluation instruments and supplies	10	
Chromatographic measuring instruments and accessories	16	
Computer data input devices	2	
Computer printers	2	
Computers	1	
Content authoring and editing software	1	

Cutting and crimping and punching tools	3
Data management and query software	1
Development software	4
Electrical measuring and testing equipment	7
Electrochemical measuring instruments and accessories	9
Fluid mechanics equipment	11
Gas analyzers and monitors	10
Indicating and recording instruments	2
Industry specific software	1
Information exchange software	1
Laboratory centrifuges and accessories	13
Laboratory decanting and distilling and evaporating and extracting equipment and supplies	19
Laboratory electrophoresis and blotting system and supplies	26
Laboratory enclosures and accessories	17
Laboratory environmental conditioning equipment	24
Laboratory freeze dryers and lyophilizers and accessories	40
Laboratory furnaces and accessories	26
Laboratory incubating equipment	20
Laboratory mixing and stirring and shaking equipment and supplies	19
Laboratory ovens and accessories	15
Laboratory water purification equipment and supplies	29
Light and wave generating and measuring equipment	4
Liquid and gas flow measuring and observing instruments	15
Liquid and solid and elemental analyzers	19
Metals and metallurgy and structural materials testing instruments	15
Network applications software	1
Sampling equipment	12
Soil measuring equipment	20
Spectroscopic equipment	10
Surveillance and detection equipment	11
Temperature and heat measuring instruments	6
Viewing and observing instruments and accessories	4
Weight measuring instruments	7

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.